



**PRINTING APPARATUS AND METHOD WITH IMPROVED  
CONTROL OF HUMIDITY AND TEMPERATURE**

**CROSS REFERENCE TO RELATED APPLICATIONS**

5                    This application is related to U.S. Application Serial No. 10/721,975, filed on November 25, 2003, in the names of Robert M. Peffer et al., entitled: PRINTING APPARATUS AND METHOD WITH IMPROVED CONTROL OF AIRFLOW.

**FIELD OF THE INVENTION**

10                  The present invention relates to printer or copier apparatus and methods and more particularly to the control of temperature and humidity in the apparatus.

**BACKGROUND OF THE INVENTION**

15                  In printing apparatus generally and more particularly of interest to electrophotography or xerography, there is a need to provide control of temperature and humidity within the copier or printer machine in order to provide for optimum performance and ensure image quality. Heretofore, control of temperature and/or humidity was provided by employing individual sensors for each of humidity and temperature in the machine and controlling temperature of  
20                  the certain component that was particularly critical, such as a photoconductor or xerographic imaging drum or belt, and controlling humidity at a different locations such as at the development station. Each is controlled to a particular set point. A problem with such an approach is that it is relatively energy inefficient and thus increases cost of production and operation of the machine. The other  
25                  large printing machines employ expensive refrigeration units, which also adds to the cost and energy use of the machine.

**SUMMARY OF THE INVENTION**

30                  The invention is directed to a low-cost solution for control of temperature and humidity in a printer. In accordance with a first aspect of the invention there is provided a printer apparatus comprising a print engine that is operative upon an article to be printed to impart markings upon the article; a sensor for detecting humidity within the printer apparatus; a sensor for detecting